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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,191	01/16/2002	Jean-Yves Vion-Dury	111170	3084
27074	7590	12/29/2005	EXAMINER	
OLIFF & BERRIDGE, PLC. P.O. BOX 19928 ALEXANDRIA, VA 22320			KISS, ERIC B	
			ART UNIT	PAPER NUMBER
			2192	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/046,191	Applicant(s) VION-DURY ET AL.	
	Examiner Eric B. Kiss	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 September 2005 has been entered. Claims 1-16 and 19 are pending.

Response to Arguments

2. Applicant's arguments filed 26 July 2005, with respect to the rejection of claims 1-16 and 19 under 35 U.S.C. § 112, second paragraph, have been fully considered and are persuasive. Accordingly, this rejection is withdrawn.

3. Applicant's arguments, see pp. 7-13, filed 26 July 2005, with respect to the rejection(s) of claim(s) 1-16 and 19 under 35 U.S.C. § 103(a) have been fully considered and are persuasive. Claims 1, 15, and 16 require that the first type not be the same as (and not be a supertype of) the distinguished value type. The Safonov reference (which as Applicant points out, discusses tree node construction with pre-construction verification; Remarks, p. 10) does not adequately teach this feature in a context that would motivate one of ordinary skill in the art to arrive at the proposed combination. Therefore, the rejection has been withdrawn.

4. However, upon further consideration, a new ground(s) of rejection is made in view of 35 U.S.C. § 101.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-16 and 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-14 and 19

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. § 101. To be statutory, a claimed process must either: (A) result in a physical transformation for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application which produces a useful, tangible, and concrete result. *See Diehr*, 450 U.S. at 183-84, 209 USPQ at 6 (quoting *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)) (“A [statutory] process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.... The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence.”). *See also Alappat*, 33 F.3d at 1543, 31 USPQ2d at 1556-57 (quoting *Diehr*, 450 U.S. at 192, [209 USPQ at 10]). *See also id.* at 1569, 31 USPQ2d at 1578-79 (Newman, J., concurring) (“unpatentability of the principle does not defeat patentability of its practical applications”) (citing *O'Reilly*, 56 U.S. (15 How.) at 114-19).

In *State Street*, the Federal Circuit examined some of its prior section 101 cases, observing that the claimed inventions in those cases were each for a “practical application of an abstract idea” because the elements of the invention operated to produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. For example, the court in *State Street* noted that the claimed invention in *Alappat* “constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced ‘a useful, concrete and tangible result’-the smooth waveform.” *Id.* Similarly, the claimed invention in *Arrhythmia* “constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it corresponded to a useful, concrete and tangible thing-the condition of a patient’s heart.” *Id.*

Claims 15 and 16

A claim limited to a machine or manufacture, which has a practical application, is statutory. In most cases, a claim to a specific machine or manufacture will have a practical application. *See Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557 (“the claimed invention as a whole is directed to a combination of interrelated elements which combine to form a machine for converting discrete waveform data samples into anti-aliased pixel illumination intensity data to be displayed on a display means. This is not a disembodied mathematical concept which may be characterized as an ‘abstract idea,’ but rather a specific machine to produce a useful, concrete, and tangible result.”); and *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02 (“the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and

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tangible result' – a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.”). *Also see AT&T*, 172 F.3d at 1358, 50 USPQ2d at 1452 (Claims drawn to a long-distance telephone billing process containing mathematical algorithms were held patentable subject matter because the process used the algorithm to produce a useful, concrete, tangible result without preempting other uses of the mathematical principle.).

However, the article and machine recited in claims 15 and 16 are distinct from the statutory inventions of *Alappat*, *State Street*, and *AT&T* in that they do not achieve a practical application, *i.e.*, the processes associated with the recited article and machine do not produce a concrete, tangible and useful result, as explained above with respect to claims 1-14 and 19. Accordingly, these claims do not recite statutory subject matter.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.

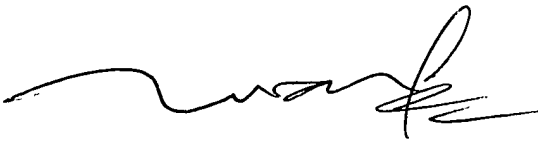
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature should be directed to the TC 2100 Group receptionist: 571-272-2100.

EBK
December 16, 2005



TUAN DAM
SUPERVISORY PATENT EXAMINER